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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,618	05/05/2006	Katsumi Shibayama	046124-5395	7829

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EXAMINER	
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ART UNIT	PAPER NUMBER
2814	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/541,618	SHIBAYAMA ET AL.	
	Examiner	Art Unit	
	Anh D. Mai	2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 February 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) *6-9* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/5/2006; 4/25/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, Claims 1-5 in the reply filed on February 25, 2009 is acknowledged.

Action on merits of claims 1-5 follows.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on May 5, 2006 and April 25, 2007 has been considered by the examiner.

Specification

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested:

A WIRING SUBSTRATE HAVING TWO RADIATION SHIELDING INTERPOSERS CONNECTING BACK-TO-BACK.

Claims Objection

5. Claims 3-5 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

With respect to claim 3, Claim 3 recite: "the wiring substrate according to claim 1, the conductive member of each of the first wiring substrate and second wiring substrate **is formed and disposed on the inner wall of the through hole** that is provided in the glass substrate".

The limitations of claim 1 include: "a conductive member, disposed in the through holes and function as the conductive path".

When the conductor disposed in the through holes, it is obvious that the conductor disposed on the inner wall of the holes.

Therefore, claim 3 fails to further limit claim 1.

With respect to claim 4, Claim 4 recites: "the wiring substrate according to claim 1, wherein the conductive member of each of the first wiring substrate and second wiring substrate is **disposed by filling the interior of the through hole** that is provided in the glass substrate".

How the holes are filled fails to further limit the existent of the conductive material in the holes of claim 1.

Therefore, claim 4 fails to further limit claim 1.

With respect to claim 5, claim 5 recites: "the glass substrate of each of the first wiring substrate and second wiring substrate is a glass substrate, wherein **a plurality of the through**

holes are provided by fusing together and integrally forming a plurality of hollow glass members that are open at both ends".

The hollow glass member of claim 5 only exists without the conductor. The limitation of claim 1, however, the hollow member has already filled with conductor. Thus, the hollow members are no longer existing in claim 1.

Since the hole of the wiring substrate has already been filled with conductor, the wiring substrates are no longer hollow that are open at both end.

Therefore, claim 5 fails to further limit claim 1.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites: "the glass substrate of each of the first wiring substrate and second wiring substrate is a glass substrate, wherein **a plurality of the through holes are provided by fusing together and integrally forming a plurality of hollow glass members that are open at both ends**".

The limitation of claim 5 is directed to the hole (hollow glass member) before it being filled with the conductor.

Since the hole of the wiring substrate has already been filled with conductor, the wiring substrates are no longer hollow that are open at both end.

Claim 5 recites both hollow members and the filled member at the same time, thus claim 5 is contradicting claim 1, and therefore, claim 5 is indefinite.

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-5 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 4-7 of U.S. Patent No. 7,326,907 in view of Nguyen (US Patent No. 5,477,933).

Paten '907 has already claimed substantial portion of the instantly claimed limitations with the exception of the wiring substrate comprising at least a first wiring substrate and a second wiring substrate.

However, Nguyen teaches a wiring substrate comprising at least two wiring substrate; wherein in the view in the conduction direction from the signal input surface to the signal output surface, the position of the through hole (18, 19) in the first wiring substrate (13) differs from the position of the through hole (18, 19) in the second wiring substrate (28). (See Fig. 4).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to form the wiring substrate of Patent '907 to include a second "off set" wiring substrate as taught by Nguyen to prevent the radiation that may pass through the first wiring substrate from reaching the circuit below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Mattson et al. (US Patent No. 7,379,528).

With respect to claim 1, Mattson teaches a wiring substrate, having a conduction path that guide an electrical signal between a signal input surface and a signal output surface as claimed, the wiring substrate including:

at least a first wiring substrate (286), disposed at the signal input surface side, and a second wiring substrate (286'), connected to the first wiring substrate (286) at the signal output

surface side, each wiring substrate respectively comprising a glass substrate, formed of a predetermined glass material having a radiation shielding function and provided with a through hole (90), and a conductive member (288), disposed in the through hole (90) and functioning as the conduction path by providing electrical continuity between the input surface and the output surface, and

wherein in the view in the conduction direction from the signal input surface to the signal output surface, the position of the through hole (90) in the first wiring substrate (286) differs from the position of the through hole (90) in the second wiring substrate (286'). (See Fig. 16).

With respect to claim 2, each of the first wiring substrate (286) and the second wiring substrate (286') of Mattson is formed of the glass material that contains lead.

With respect to claim 3, the conductive member (288) of each of the first wiring substrate (286) and second wiring substrate (286') of Mattson is formed and disposed on the inner wall of the through hole (90) that is provided in the glass substrate.

With respect to claim 4, the conductive member (288) of each of the first wiring substrate (286) and second wiring substrate (286') of Mattson is disposed by filling the interior of the through hole (90) that is provided in the glass substrate.

With respect to claim 5, insofar as the structure is concerned, the glass substrate of each of the first wiring substrate (286) and second wiring substrate (286') of Mattson is a glass substrate, wherein a plurality of the through holes (90) are provided by fusing together and integrally forming a plurality of hollow glass members (90) that are open at both ends.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh D. Mai whose telephone number is (571) 272-1710. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anh D. Mai/
Primary Examiner, Art Unit 2814